

SUPPLEMENT.

The Mining Journal,
RAILWAY AND COMMERCIAL GAZETTE

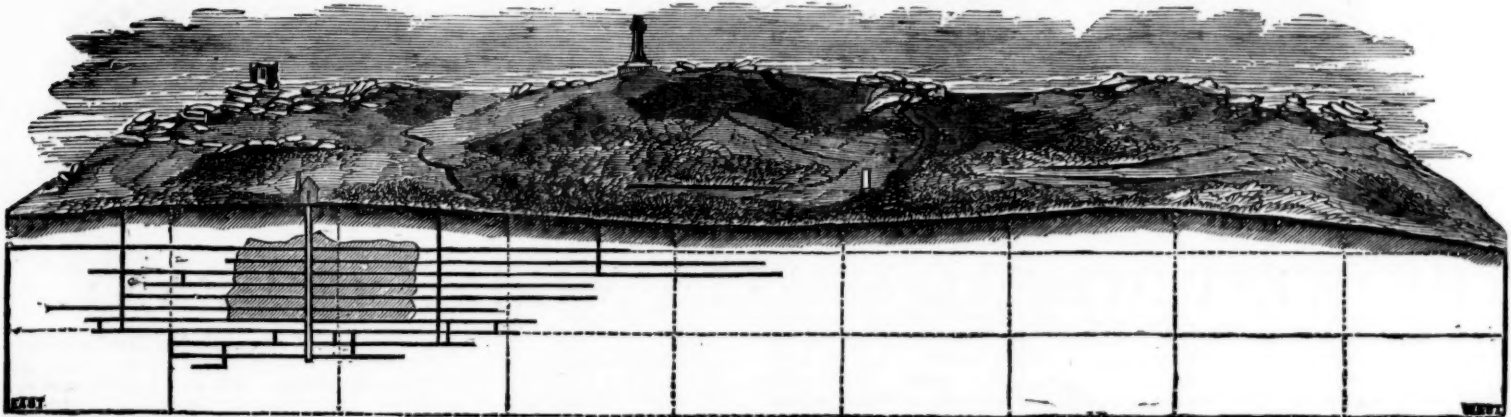
FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1510.—Vol. XXXIV.

LONDON, SATURDAY, JULY 30, 1864.

[WITH] [STAMPED SIXPENCE.]
[JOURNAL] [UNSTAMPED.. FIVEPENCE.]

NORTH POOL MINING COMPANY.



A VIEW OF THE CARN BREA HILL.

The North Pool Mine is situate in the parish of Illogan, and first commenced, from operations on one lode only, to pay dividends in the year 1847. The lodes in general are those of North Roskear, Seton, West Seton, and North Crofty. In fact, the Company's grant adjoins the latter mine, and continues eastward to the South Tolgus and Great South Tolgus grants. The length on the course of the lodes is fully a mile, and the operations of the late company were restricted to the exhaustion of a single deposit of copper ore on a lode in the eastern section of the sett. Four or five other lodes are wholly unwrought, and stand entire throughout the grant. The profits were—1847, 1,000*l.*; 1848, 7,750*l.*; 1849, 11,750*l.*; 1850, 14,250*l.*; 1851, 9,000*l.*; 1852, 5,500*l.*; 1853, 7,000*l.*; 1854, 5,200*l.*, making a total of 61,450*l.*, or equal to 307*l.* 5*s.* per share, 22*l.* 10*s.* paid up, say 4,500*l.* in the entirety. The mine was discovered in the year 1845, by opening out for 100 fms. in length at the adit level, a caunter lode, very similar to Reeve's lode at North Crofty, from which more than 500,000*l.* worth of copper ores were extracted by the late Capt. Nicholas Tredinnick, with unusual profits, upon a subscribed capital of 11,000*l.* only. This and other lodes are now very rich in produce of tin ores. At North Pool, the 12, 24, 36 and 48 fm. levels became rapidly developed and continued to increase in yield and profits as depth was attained, when shares advanced in market worth to 500*l.* to 600*l.* per share. The works latterly were not practically carried out, in our judgment, and the executive never endeavoured to discover other deposits of mineral in opening out the side lodes until the first discovery of copper ore became exhausted; hence, after two years' cessation of dividends, the works were abandoned with an expenditure of 10,000*l.* to 15,000*l.* in the partial sinking of shafts and cross-cuttings, the whole benefit of which is available and valuable to the present company, who succeeded in purchasing the property for 4,000*l.*, to which has been subscribed, as a working capital, the further sum of 10,614*l.* The mine is now in full course of working; a large and powerful pumping engine is erected; and we entertain no doubt, that in the lapse of a few months the

intrinsic worth of the property will become established equal to that of the best dividend mine in the district, which, in yield of copper and tin, has supplied 60 per cent. of the aggregate profits of Mining Enterprise throughout the length and breadth of Cornwall and Devon for the past fifty years, and is still the richest in those counties, and for extent and permanence one of the best, if not the very best, in the world. It comprises the southern portion of the parishes of Camborne and Illogan, and has a length of about four miles from east to west, extending from Blowing House Bridge to Barripper, with a width of less than two miles. It includes the whole of the narrow detached range of Carn Brea, which skirts the main Carn Menellis granite tract on the north; and it is along the junction of these granite ranges with the killas that the metalliferous zones are met with. Possessing the deepest mines now working in the country—mines which have gone through numerous phases, having been formerly as productive for copper as they are now rich for tin—this district is necessarily one of the most important and interesting in Great Britain.

In this district are situated the following mines. We collect from published statistics, that they have declared in dividends the large sum of £3,424,930; and at this date (July, 1864), command a market value of £1,377,506, upon an aggregate expenditure of £970,405:—

Mines.	Outlay.	Dividends.	Market Value.
Basset	£2,624	£307,200	£48,640
Brewer	1,024	10,600	suspended
Carn Brea	15,000	280,500	65,000
East Crofty	11,750	78,960	merged
Dolcoath	46,187	273,333	196,900
East Pool	3,104	47,232	64,000
North Roskear	20,475	102,000	12,600
Seton	23,166	69,201	89,760
South Frances	9,393	183,855	24,800
Stray Park	30,613	12,500	28,520
Tincroft	54,000	90,300	108,000
Tresavean	3,120	454,422	suspended

Mines.	Outlay.	Dividends.	Market Value.
Trethellan	£1,860	£18,441	suspended
Treviskey and Barrier	15,600	37,920	ditto
United Mines	16,000	482,800	merged
North Pool	4,500	61,450	22,400
Treleigh Consols	30,000	5,500	suspended
Buller	1,280	244,672	7,040
Comford	19,200	2,422	suspended
Condurrow	8,960	20,992	21,760
North Basset	14,700	84,300	12,000
South Tolgus	4,096	38,144	19,968
Clifford	87,000	92,583	94,250
St. Aubyn and Grylls	7,493	896	—
West Basset	9,000	152,400	60,000
West Damsel	9,856	12,672	15,872
West Seton	19,000	163,600	80,000
Great South Tolgus	4,350	47,550	17,625
Grambler and St. Aubyn	26,730	11,178	8,743
St. Day United	56,000	1,000	30,000
Cook's Kitchen	41,472	3,307	51,450
East Carn Brea	22,500	—	48,000
East Grenville	13,500	—	33,000
Emily Henrietta	12,032	—	9,216
Grenville	51,600	—	44,252
New Seton	12,700	—	56,000
North Downs	16,000	8,000	12,000
South Carn Brea	45,500	—	3,000
South Seton	18,660	—	10,400
Tolcarne	11,400	—	21,000
Uny	38,298	—	24,576
West Tolgus	19,712	—	28,160
South Gorland	7,000	—	8,569
West Penstruthal	4,000	—	—

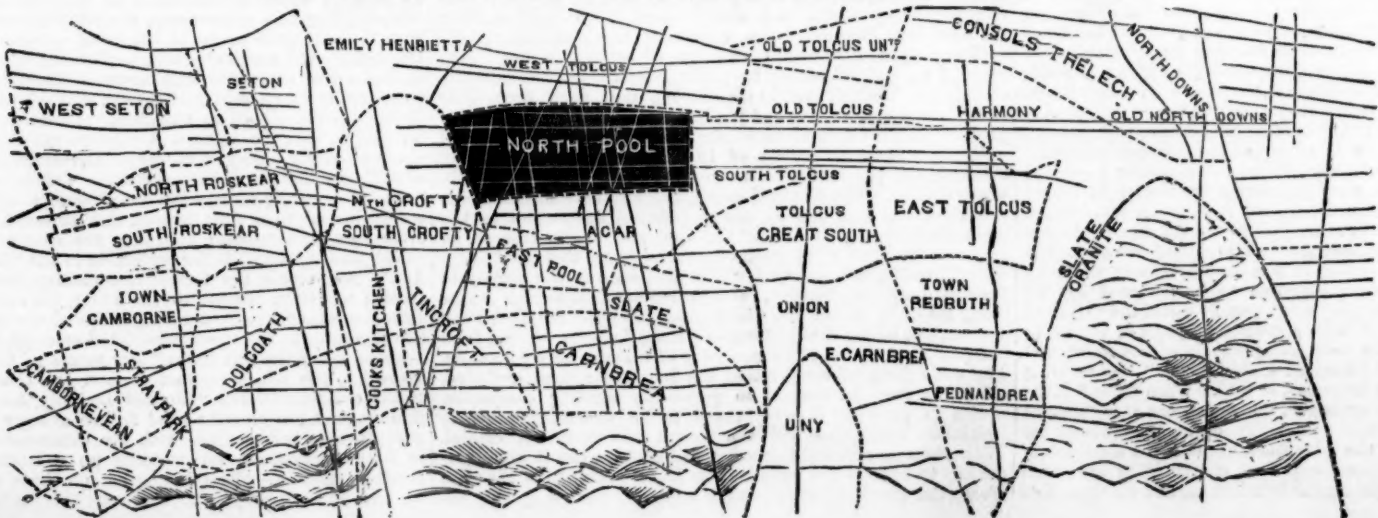
Total.....£970,405 £3,424,930 £1,377,506

We have much pleasure in introducing this enterprise to the notice of our friends and the public at £3 10*s.* per 6400th Share, and invite early attention thereto.

78, LOMBARD STREET,
LONDON, E.C., July, 1864.

TREDINNICK & CO.,
Stock and Share Brokers and
Dealers in British Mining Shares.

THE MINES ON THE NORTH SIDE OF CARN BREA HILL.



THE SOUTH WHEAL GORLAND MINING COMPANY.

The SOUTH GORLAND MINE is situate to the west of St. Day United, Consols, United Mines, and the Clifford Amalgamated, which have yielded exceeding 5,000,000l. sterling, and profits of 2,000,000l. A great deal of preparatory and necessary work has been carried out, and at an outlay exceeding 10,000l., the whole of which is in favour of the enterprise, both in respect to future expenditure of money and time in maturing operations. At the 40 fm. level a good lode is laid open for several fathoms in length, which as soon as the shaft is communicated can be wrought for 8s. in the £ cost. The 50 fm. level is well situate for command-

ing this ground, whilst the side lodes can be reached at a trifling expenditure.

The following extracts from a paper by R. Hunt, Esq. F.R.S., on the mineral wealth of Cornwall, will show the immense returns made by some few only of the mines in this district, at a period when the mining interests had not the facilities for working which they now have. According to this paper, nine mines appear to have returned, from the year 1815 to 1850, 1,298,722 tons of ore, of the value of 8,035,990l. Again, we gather that upon comparatively small expenditure the subjoined mines have given profits as follows:—

	Dividends.		Dividends.
Tresavean.....	£454,422	Great Consols and Utd.	
Beauchamp Buller....	120,000	Mines (now Clifford	
Penstruthal.....	130,000	Amalgamated)....	£1,199,828
Jewell.....	250,000	Unity.....	330,000
Damsel.....	180,000	Maid.....	40,000
Gorland.....	150,000	Foldice.....	200,000
Treskerby.....	200,000	West Clifford United	
Trethellan.....	48,000	(late Ting Tang)...	50,000
Trevisky and Barrier..	37,000		

Messrs. Tredinnick & Co., therefore, do not hesitate to recommend South Gorland Mine, at par, say 6l. per share, to those who desire to embark into legitimate mining enterprise.

MINES ON THE SOUTH SIDE OF CARN BREA HILL.



THE WEST WHEAL GRYLLS MINING COMPANY.

WEST WHEAL GRYLLS MINE, situate in the parish of Perran-uthnoe, in the county of Cornwall, conducted upon the cost-book system, Mr. Samuel Higgs, Jun. (of Penzance), Purser, consisting of 6,000 shares; held under lease from W. J. Trevelyan, and John Hosking, Esqs. Royalty or dues 1-18th, and free from dead rents. This undertaking is situate in one of the first districts for yield of copper and tin throughout West Cornwall; and, from discoveries already made, no reasonable doubt can exist of its becoming a great, valuable, and permanent property. At present no stamping power is possessed; consequently the ores are sold in a crude state (technically called the stone) to great disadvantage; yet the produce meets costs, and it is calculated that fully seven tons of black tin can be raised monthly, with considerable quantities of copper ores as well, as soon as the pumping and stamping engine is erected, thus securing sales of 500l. to 600l. monthly; and this sum will leave good profits with chances of further discoveries equal to those of the best mines in the locality.

The productiveness of the district in which West Wheal Grylls is situated, will be seen from the returns of copper ore yielded by several of the surrounding mines, at some of their more recent workings only, and of which the following are the most important:—

Mines.	Returns.	Mines.	Returns.
Fortune.....	£570,000	Rodney Mines.....	£31,000
Old Neptune.....	400,000	Trevelyan.....	26,000
Friendship.....	261,000	Gwallon.....	61,000
Halamaning.....	283,000	Caroline.....	84,000
Owen Vean.....	250,000	Tolvadden.....	48,000
Tregurtha Downs.....	165,000	Trenow Consols.....	48,000
Marazion Mines.....	161,000	Trebarvah.....	32,000
Charlotte.....	151,000	Grylls.....	47,000
Darlington.....	119,000	St. Aubyn and Grylls....	65,000
Jewell.....	108,000	Wellington, now part of	
Speedwell.....	167,000	Grylls.....	32,000
Guskus.....	23,000		

The above returns have been extracted from the records preserved in the Museum of Practical Geology, and from other

sources. The aggregate of these figures amounts to near 3,000,000l. sterling; and if to this be added the copper produced by the same mines at their earlier and other workings, and by those of the surrounding mines, of which there are no official returns, the total will probably amount to nearly, if not quite, 5,000,000l. sterling. For Great Fortune was worked previously by the ancestors of Sir Charles Lemon, and is said to have given them 300,000l. profit, and made the fortune of that family. Neptune is estimated to have yielded altogether 400,000l., and the Marazion Mines, Penberth Croft, Gwallon, Tregurtha Downs, Owen Vean, Trevelyan, &c., were all worked previously, and yielded large profits.

There are no official returns of the tin obtained from any of the above mines; but as the district is even richer for tin than for copper, the value of the former metal returned by them has probably exceeded that of the copper ore which they have produced, forming an immense aggregate of mineral yielded by the immediate district, and which, at the present value of the respective ores, would probably not be over estimated at from 8,000,000l. to 10,000,000l. sterling. We subjoin a report from the agents at West Wheal Grylls, and beg to solicit early applications for the few remaining shares, at 1l. per share, in the form annexed.

REPORT.

WEST WHEAL GRYLLS.—This sett, surrounded by the richest mines of the district—Wheal Grylls, Florence and Grylls, Neptune, Speedwell, and Chiverton—is comparatively unwrought, in consequence of the difficulties in obtaining joint leases. The principal lodes have been opened on from the surface to a depth of 10 fms., and have all proved productive. Sinking could not be continued under this until the deep adit brought up by the Millpool and St. Aubyn and Grylls adventurers was completed, which enabled shafts to be sunk, principally on Hosking's lode, to the depth of 42 fms. From this lode alone upwards of 2,000l. worth of tin has been sold in the stone, leaving large reserves which will produce from 3 to 4 per cent. of tin. The Great Tin lode, or "Georgia" lode, so productive in Florence and Grylls, has also been extensively opened upon with similar good

results. The North Copper lode has likewise proved productive, and there are now regular sales of copper. These lodes traverse the entire sett. Fisher's lode, which yields such extraordinary quantities of tin in Wheal Grylls, passes through this property in a north-west direction, and, as soon as ventilation is ensured, a cross-cut will be driven from the 40 west of Trevelyan's shaft to intersect it. The Chiverton standard lode, the Speedwell, and the Wellington Copper lodes, traverse the entire length of the sett, and are intersected by the elvan course. A shaft is now sinking in the Chiverton standard lode, and cross-cuts will be driven as quickly as possible from the 25 and 40 fm. levels to intersect the other lodes, which are not more than 30 fms. from the present workings, and can be driven at very trifling costs. As soon as the stamping power is erected the monthly sales will be about 7 tons, to which must be added the copper sales, and which will leave good profits to the shareholders.—JOHN CURTIS, JOHN WHITE.

FORM OF APPLICATION FOR SHARES.

Messrs. Tredinnick and Co., 78, Lombard-street, London, E.C.

Gentlemen,—I beg to apply for Shares in the West Wheal Grylls Mine, at 20s. per share, and enclose you cheque or bank draft for £ , being 5s. deposit upon the full number applied for; but I agree to accept of any less number of shares that you may appropriate to me, and to pay the further sum of 15s. per share upon receiving a transfer for the same.

Name _____
 Profession or Occupation _____
 Address _____
 Date _____

N.B. Cheques or Bank Drafts to be crossed Messrs. Fuller & Co. and the above form of application will do for North Pool shares, at 3l. 10s. per share, or South Gorland, at 6l. per share.

THE COST-BOOK SYSTEM AND LIMITED LIABILITY.

In answer to numerous inquiries from subscribers we beg to state that the "Cost-book system" constitutes a complete copartnership between the shareholders as regards the mine or adventure in which they are engaged, if situate within the operation of the laws and practices of the Stannary Court of Cornwall and Devon. It also possesses several peculiar advantages over the Limited Liability Acts. The salient points of the Cost-book system may be enumerated as follows: its adaptability to the requirements of mining enterprise, the facility with which it is applied to the settlement of disputes, the ease with which shareholders can escape from future responsibility, the precision with which they can determine their existing liabilities at any moment, and the advantages which it affords to the successful development of promising undertakings, through the power possessed of raising from time to time just sufficient money to defray costs incurred, or expenditure required in prosecution. There ought to be no liabilities in mines worked upon the Cost-book system beyond those that accrue over a period of two to four or at furthest, six months, so that in fact the copartnership possesses practically every advantage supposed to be afforded by the cumbersome Joint Stock Company's Act, usually called the "Limited Liability Act," combined with a greater freedom of action in having the power to make calls irrespectively of the amount of the shares. Under the "Limited Liability Act" the nominal amount of shares cannot be passed, or rather when three-fourths of the money has been expended, the operations of companies must be wound up, either voluntarily or in bankruptcy, no matter how promising the adventure, or near the approach of success; thus the sanguine hopes of shareholders are often doomed to end in disappointment in mines carried on upon this

principle, whilst certain success would be achieved under the Cost-book system, for in the prosecution of mines no authority, however experienced or practical, can determine the actual capital required to open out the lodes and discover profitable deposits of ore; therefore the practice of holding meetings two-monthly or quarterly, and shareholders themselves auditing the accounts, discussing the merits of the undertaking and deciding upon the future conduct of affairs, is peculiarly adapted to, and calculated to promote and foster the interests of miners. We may add, in illustration, that Carn Brea, after making immense returns and profits became abandoned; yet the present company erected machinery, pumped out the water, and succeeded, upon an outlay of 15,000l., in giving profits of 280,500l., and possess at this moment a property commercially worth 60,000l. The mine adjoining, Tincroft, also abandoned as worthless, was regarded by many practical authorities as the more desirable speculation of the two, and shares rose to an immense premium; the results prove, however, that a subscription of 54,000l. was required, whilst dividends in the aggregate amount only to 90,300l., the present commercial value being 105,000l. This mine was formed, not upon the Cost Book System, but under the old form of "Scrip," shares passing from hand to hand, without the necessity of transfer or registration. The scrip form of constitution has long since been exploded, otherwise than in respect to previously existing companies, whilst in practice it was proved to be disadvantageous to legitimate enterprise and the secure investment of capital. Tincroft became reduced in value to 24,000l., when it was determined to change the constitution from "Scrip" to the Cost Book, the results at once became apparent, namely, greatly en-

hanced dividends and an increased market value as stated above. Again, Tresavean, three times rich and three times abandoned, is once more at work, but who can determine the capital required to unwater the old works and sink shafts so as to open out deeper sections of the various lodes? Notwithstanding this uncertainty, several practical authorities regard the enterprise as one of the most encouraging throughout Cornwall. We must also admit that the history of the past encircles the adventure with unusual fascination, for the last company, upon an outlay of 3,120l., divided profits of 449,064l. Buller was abandoned as valueless, yet a few pounds discovered its wealth, and the mine a few years ago sold for 1,050l. per share upon an outlay of 5l. only. Dividends in the aggregate of 929l. per share have been declared. Other instances of brilliant and startling success can be adduced to prove that mining enterprise requires time, money, and personal investigation in order to secure success; and that the simple working of the "Cost Book System" is far preferable to the "Limited Liability Act." As regards the former, shareholders can act for themselves; whilst in respect to the latter, the control is vested in directors, who generally are as ignorant of the science and practice of mining as the most uninitiated amongst the proprietary;—hence arises the fact that all our prizes in Cornwall, without exception, are mines conducted upon the Cost Book System, to the exclusion of the "Limited Liability Act," which up to this moment has proved a total failure as regards profit to the adventurers; and we agree with Mr. Commissioner Fonblanque in his observations on winding up a Bankrupt Company, Limited, namely,—“This is another of those warnings which we have so frequently had. When you once get into a Joint Stock

Company you never know when you will get out of it." The fact being established that not a single instance has existed of a dividend from profits being declared from any mine constituted under Limited Liability within the range of the Cost Book System (Cornwall and Devon), we may fairly conclude that its working is wholly inapplicable to mining pursuits. It has been tried in a hundred cases, and in each instance failed.

In North and South Wales the Cost Book System, though operative, is not desirable, for the customs and laws of the Stannary Court cannot be enforced; hence we have mines paying large profits, and several others of a progressive character constituted under the Limited Liability Act, but the success of these undertakings was determined before this act had existence, though it was judiciously adopted, in our opinion, for the reason that the jurisdiction of the Stannary Court did not extend to Wales, therefore its peculiar advantages and privileges could not be enjoyed. The mines to which we refer are the Minera, Llan-gynog, Bronllyd, Cwm Erfin, Cwmystwith, Vigna and Clogau, and in other districts the Alderley Edge, Foxdale, Great Laxey, and Parys.

Again Joint Stock Banks and Financial Companies possess at present, peculiar attractions, and have engrossed great public attention, almost to the exclusion of the other branches of speculative enterprise with which the sound progress and substantial gains of the country are closely entwined, as well as the industry of the masses of our working people; it therefore behoves all clearly to understand the nature and character of these trading companies. In our opinion they are invested with risks and hazards of more than an ordinary kind, though to superficial observers, in nine cases out of ten, hidden from view.

The great measure of success which has hitherto attended joint stock banking enterprise in England has had the inevitable result of stimulating competition in the business of money dealing; and, looking at the list of new Companies, and the premiums already attained by their shares, one cannot help some misgivings as to whether the business may not now be overdone. One result of the competition is already apparent,—the lowering of banking charges and margin of profits. Another will only be observed when commercial failures become more frequent; but nothing is more certain than that increased competition in any business begets greater readiness to incur risk for the sake of making profits.

An analysis of the share list shows us:—

	Number.	Nom. capital.
Banking Companies established for some years	26	£31,100,000
New banks.....	47	51,600,000
Add		
New Credit and Discount Companies competing with banks in so far as they lend money, and receive deposits.....	24	34,150,000
Increase of competition	71	£85,750,000

being an increase of 275 per cent. on the nominal capital employed a few years ago.

The premiums on these new Companies amount to over 10,000,000—sum, it may be remarked, almost equal to the whole paid-up capital of the joint stock banks before this mania commenced.

It has been remarked in these columns that the premiums on the new Companies must be regarded as "prophetic," the public believing that in the course of time each bank will attain the high dividends and reserves of the first joint stock companies. But it may, perhaps, be more properly stated that these dividends are retrospect or imitative, because, although good dividends may be paid on a small paid-up capital by a large "turn-over," as long as business remains sound, it has yet to be seen whether the greatly diminished proportion of profit to business done will sufficiently protect the bank against the inevitable day of crisis.

A new bank is established, without old connection or any experienced direction; it opens offices in several large cities at once, and, without considering that each establishment has expenses which will perhaps amount to more than an agency reduces the charges of ordinary banking transactions to one-half, and in some cases even to one-fourth, of the former rates. Thus:—

	Banks formerly.	New Companies.
Remittance from Scotland to London	3 6 per cent.	1 0 per cent.
Ditto Liverpool to London	2 6 "	0 6 "
Negotiating foreign bills including endorsement	15 0 "	5 0 "
Retiring bills in London	5 0 "	1 3 "

Further, instead of getting money on deposit in millions, with a margin of 2 or 3 per cent., and, at times, even more, between the rate allowed, and the charge for discounts, it is notorious that certain new banks compete so eagerly for deposits, or rather loans, especially in large amounts, that in many cases the full Bank rate is paid, or within $\frac{1}{4}$ per cent. thereof, leaving a margin on fair mercantile paper of $\frac{1}{3}$, or at most 1 per cent.

Loans so obtained by the bank are, of course, included in the return of customers' deposits, the figure by which the confidence of the public and the business of the bank are always measured.

Now, supposing a bank with 300,000 of paid-up capital obtains average deposits on loans to the extent of 5,000,000, and employs this sum in discounts. A margin of one per cent. will leave a profit of 50,000 per annum, and as the interest of the company's own capital will probably pay all expenses and casual losses, a dividend of 16 per cent. might be paid. But it is by no means improbable that in a commercial crisis, which seems to come regularly once in ten years, bad debts should be made to the extent of 10 per cent. of the bills in hand. This 10 per cent. on 5,000,000 would exactly absorb the profits of ten years, shewing the business for the whole of that time to have been absolutely worthless.

It is not so long since the losses of the Borough Bank at Liverpool and Western Bank in Glasgow, gave us a lesson which seems now to be almost forgotten. The question, then, which the investor in banks ought to put to himself, is this—How far will charges and margins, one-fourth or one-third of those hitherto earned by banking, go to pay the losses which must come some time; and what returns ought I to get for money invested in a business in which I incur so much risk?

Were this question put, and fairly answered, it is probable that the premiums on banking shares, which have done so much harm already, in stimulating competition of Companies, would be greatly reduced, if they did not in many cases wholly disappear.

In conclusion, our readers may enquire how can we determine into what description of mining enterprise to embark, i.e., copper, tin, or lead, or which undertaking shall we specially select as a desirable investment for our money. In reply, we beg to state that, as regards Devonshire, the Devon Great Consols is unquestionably good, the shares are likewise unquestionably high, still the dividends, two monthly, are 10s. to 12s., having large reserves of ores with great chances of future discoveries. In Cornwall we have Dolcoath, Seton, North Crofty, Tincroft, Corn's Kitchen, Providence, East Margaret, Spearn Moor, Owles, Gt. Vor,

Rosewall Hill and Ransom, Hearle, East Pool, North Pool, West Tolgus, Carn Brea, West Grylls, South Gorland, St. Day United, North Rosewarne, Rosewarne Consols, and East Providence, all mines of wealth, well managed, sound in constitution, and permanent in character and promise. There is, it is true, a wide difference betwixt the merits of one mine and another, and for the guidance of those not practically associated with such pursuits we furnish a list of six dividend and six progressive undertakings for a fee of 5s.

Mines should be sought in good localities, the management scrutinized, the position and prospects of the works ascertained, and then with the requisite funds forthcoming, no medium of investment presents the same chances of success or pays so large a rate of interest. Speculative non-dividend shares afford greater range for profits than many of the old established companies, with hazards as regards incurring loss: but a judicious selection at the present time cannot fail in securing large profits upon ruling prices of shares. Many a fortune has been, and will again be made with comparatively small investments, for immense as have been the returns and profits from the mineral wealth of Cornwall, and which have for centuries enriched mankind and rewarded enterprise and perseverance in prosecuting the mines of that county, it would appear that her resources are yet equally prolific. There is no fear from recent discoveries that her stores for ages to come will exhibit any token of even approaching exhaustion. New veins are constantly being discovered, and increased riches produced to reward the industrious, persevering, and enterprising miner, whose energies no stratum can resist or obstacles daunt in his slow, yet certain progress to success. Undoubtedly mining presents many hazardous positions, and risks become more attractive in proportion to their extent, but with the guiding lights of science at hand following out the various operations with spirit, perseverance, and judicious economy, no pursuit presents more lucrative prospects, enriching its supporters and giving employment and plenty to a deserving, intelligent, and working population. "Nil desperandum" is the watchword, as "One and all" is the motto of every true-bred Cornish Copper and Tin Miner! TREDINNICK AND CO., Stock and Share Brokers, and Dealers in British Mining Shares, 78, Lombard Street, London, E.C.

International Exhibition, 1862—Prize Medal.



JAMES RUSSELL AND SONS
(the original patentees and first makers of wrought-iron tubes), of the CROWN PATENT TUBE WORKS, WEDNESBURY, STAFFORDSHIRE, have been AWARDED A PRIZE MEDAL for the "good work" displayed in their wrought-iron tubes and fittings.
Warehouse, 81, Upper Ground-street, London, S.

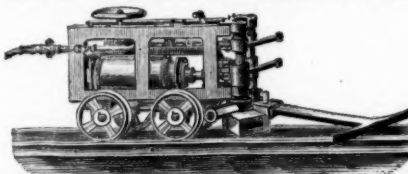
Prize Medals—International Exhibition, Class 1 and 2.

PATENT PLUMBAGO CRUCIBLES.—CRUCIBLES manufactured by the PATENT PLUMBAGO CRUCIBLE COMPANY are the ONLY KIND for which a MEDAL has been AWARDED, and are now used exclusively by the English, Australian, and Indian Mints; the French, Russian, and other Continental Mints; the Royal Armaments of Woolwich, Brest, and Toulon, &c.; and have been adopted by most of the large ENGINEERS, BRASSFOUNDERS, and REFINERS in this country and abroad. The GREAT SUPERIORITY of these melting pots consists in their capability of melting on an average 40 pourings of the most difficult metals, and a still greater number of those of an ordinary character, some of them having actually reached the EXTRAORDINARY NUMBER of 96 meltings. They are unaffected by change of temperature, never crack, and become heated much more rapidly than any other crucibles. In consequence of their great durability, the saving of waste is also very considerable.

The company have recently introduced CRUCIBLES SPECIALLY ADAPTED for the following purposes, viz.:—MALLEABLE IRON MELTING, the average working of which has proved to be about seven days; STEEL MELTING, which are found to save nearly $1\frac{1}{2}$ ton of fuel to every ton of steel fused; and for ZINC MELTING, lasting much longer than the ordinary iron pots, and saving the great loss which arises from mixture with iron.
For lists, testimonials, &c., apply to the Patent Plumbago Crucible Company, Battersea Works, London, S.W.
Fully described in the MINING JOURNAL of July 5.

TESTIMONIAL JUST RECEIVED.
Queen's Cross Brass Foundry, Dudley, June 10, 1864.—We have much pleasure in giving our testimony to the great superiority of your crucibles. We have constantly used them for the last four years, and find that we can melt with one of the 100 lb. crucibles from 38 to 40 cwt. of our steel mixture for bearings, which we consider tries the pots much more than the ordinary brass or gun metal. There is also a very considerable saving in fuel and time, as we now make one furnace do the same work two formerly did with the clay pots. There is also much less waste from oxidation, in consequence of the metal being so quickly melted. After having tried many kinds, we have no hesitation whatever in pronouncing them to be the best and most economical crucibles that can be used, and so long as the quality is as good as it has hitherto been we shall on no account think of using any others.
We are, Sirs, faithfully yours, W. WESTLEY AND SON.

COAL CUTTING BY MACHINERY.



MESSRS. RIDLEY AND CO. have, by recently PATENTED IMPROVEMENTS, COMPLETED their TRUNK COAL CUTTING MACHINE, WORKED BY COMPRESSED AIR, and are NOW PREPARED TO NEGOTIATE for the USE, and to SUPPLY MACHINES, which will be found to COMBINE SIMPLICITY OF CONSTRUCTION with PORTABILITY and ECONOMY in WORKING. By the use of these machines a CONSIDERABLE SAVING OF COAL is EFFECTED, and the COST OF LABOUR MUCH REDUCED. Each machine will be guaranteed as to its capabilities, &c.
All applications to be made to Messrs. RIDLEY and Co., No. 11, South-street, Finsbury London, E.C.

* * * COLLIERY PROPRIETORS are CAUTIONED against PURCHASING or USING MACHINES, the construction of which will constitute an INFRINGEMENT of the ABOVE PATENT.

THOMAS TURTON AND SONS.

MANUFACTURERS OF
CAST STEEL FOR PUNCHES, TAPS, and DIES,
TURNING TOOLS, CHISELS, &c.
CAST STEEL PISTON RODS, CRANK PINS, CONNECTING RODS, STRAIGHT and CRANK AXLES, SHAFTS, and
FORGINGS OF EVERY DESCRIPTION.
DOUBLE SHEAR STEEL, FILES MARKED
BLISTER STEEL, T. U. R. T. O. N.
SPRING STEEL, EDGE TOOLS MARKED
GERMAN STEEL, WM. GREAVES & SON
Locomotive Engine, Railway Carriage and Wagon Springs and Buffers.

SHEAF WORKS AND SPRING WORKS, SHEFFIELD.
LONDON WAREHOUSE, 35, QUEEN STREET, CANNON STREET, CITY, E.C.
where the largest stock in the world may be selected from.

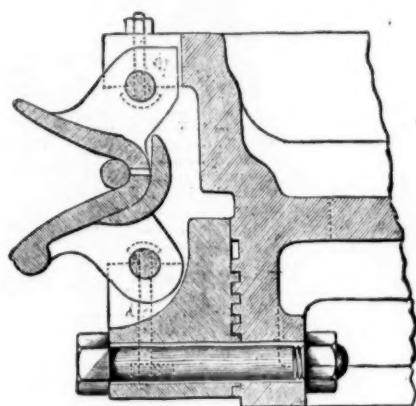
PUBLIC TEST OF WIRE-ROPE.

THE SUPERIOR QUALITY OF GARNOCK, BIBBY, AND CO.'S WIRE-ROPE was FULLY PROVED by a RIVAL MANUFACTURER at the LIVERPOOL PUBLIC TESTING MACHINE, on the 29th of October, 1860, on which occasion GARNOCK, BIBBY, AND CO.'S WIRE-ROPE was found to be the STRONGEST of all the TWELVE SAMPLES from different makers then tested, as reported in the papers of the day. For example:—
(Certified by Mr. William Macdonald, superintendent.)
Garnock, Bibby, and Co. Corresponding sizes from other manufacturers.
Size. Tons c. Tons c. Tons c.
 $3\frac{1}{4}$ in. 18 5* 16 10 11 10
 $2\frac{1}{2}$ in. 8 16* 7 15 5 9
Remainder sizes with similar results.
* Samples taken promiscuously from stock by a rival manufacturer's agent.
GARNOCK, BIBBY, AND CO.,
SWAN HEMP AND WIRE ROPE MANUFACTURERS, LIVERPOOL.
FLAT and ROUND STEEL and IRON WIRE ROPES for MINES, &c., of SUPERIOR QUALITY.



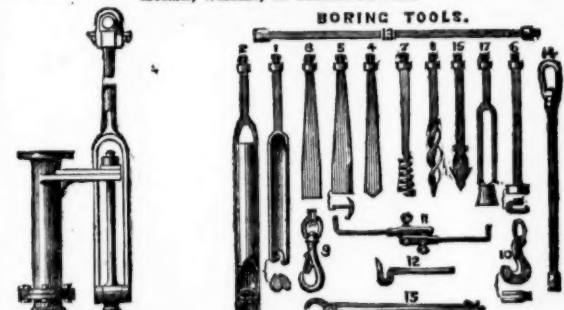
Royal Agricultural Society's Meeting, Newcastle, July, 1864. Stand, No. 84.

JOHN FOWLER AND CO.'S PATENT CLIP PULLEY
For CONVEYING POWER to a DISTANCE in COLLIERIES, MINES, &c., or ANY PLACE where WIRE ROPE is USED for TRACTION PURPOSES.

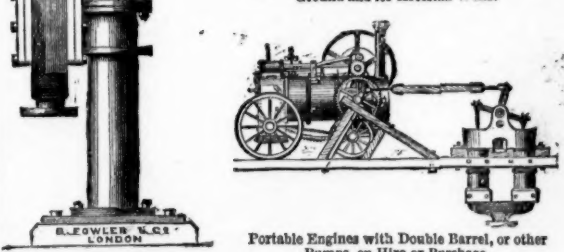


MANUFACTURED BY
JOHN FOWLER AND CO.,
STEAM PLOUGH WORKS, LEEDS.
LONDON OFFICE, No. 28, CORNHILL, E.C.

CLINTON AND OWENS (LATE B. FOWLER AND CO.),
WHITEFRIARS STREET, FLEET STREET, LONDON, E.C.,
HYDRAULIC and GENERAL ENGINEERS,
MANUFACTURERS OF PUMPS OF EVERY DESCRIPTION FOR HAND, HORSE, WATER, OR STEAM POWER.

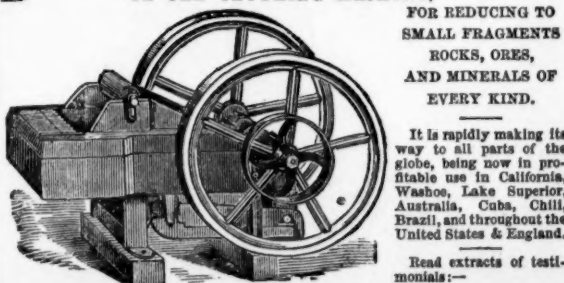


Boring Tools of every description, for Testing Ground and for Artesian Wells.



Improved Double-action Pumps. Full information, Drawings, Price Lists, &c., relating to the above, and to Hydraulic Machinery of all descriptions—Cranes, Pulleys, Blocks, and Hoisting Tackle of superior manufacture—may be had on application.

BLAKE'S PATENT STONE BREAKER, OR ORE CRUSHING MACHINE.



FOR REDUCING TO SMALL FRAGMENTS ROCKS, ORES, AND MINERALS OF EVERY KIND.
It is rapidly making its way to all parts of the globe, being now in profitable use in California, Washoe, Lake Superior, Australia, Cuba, Chili, Brazil, and throughout the United States & England.
Read extracts of testimonials:—
Alkali Works, near Wednesbury.—I at first thought the outlay too much for so simple an article, but now think it money well spent. WILLIAM HUNT.
Welsh Gold Mining Company, Dolgelly.—The stone breaker does its work admirably, crushing the hardest stones and quartz. WM. DANIEL.
Our 15 by 7 in. machine has broken 4 tons of hard winstone in 20 minutes, for fine road metal, free from dust. Messrs. ORD and MADDISON, Stone and Lime Merchants, Darlington.
Kirkless Hall, near Wigan.—Each of my machines breaks from 100 to 120 tons of limestone or ore per day (10 hours), at a saving of 4d. per ton. JOHN LANCHESTER.
Ovoca, Ireland.—My crusher does its work most satisfactorily. It will break 10 tons of the hardest copper ore per hour. WM. G. ROBERTS.
General Fremont's Mines, California.—The 15 by 7 in. machine effects a saving of the labour of about 30 men, or \$75 per day. The high estimation in which we hold your invention is shown by the fact that Mr. Park has just ordered a third machine this estate. SILAS WILLIAMS.
For circulars and testimonials, apply to—
H. R. MARSDEN, SORO FOUNDRY,
MEADOW LANE, LEEDS.
Only maker in the United Kingdom.

DIVIDEND STATISTICS OF CORNISH AND DEVON MINING FOR THE PAST SEVENTEEN YEARS.

MINES.	Divs. prior to 1847.	1847	1848	1849	1850	1851	1852	1853	1854	1855	1856	1857	1858	1859	1860	1861	1862	1863	Total divs. for 17 years.	Market value Jan., 1864.	Outlay, Dec. 1863.
Basset	87,120	...	1,280	6,400	14,080	15,360	21,760	30,720	34,560	35,200	31,232	20,992	16,896	17,408	12,288	6,656	7,680	2,048	318,680	44,800	2,624
Ballenwidden	8,954	933	...	2,922	8,451	3,247	1,948	2,307	406	...	...	...	...	...	...	...	...	...	26,148	19,488	23,433
Boscawell Downs	47,200	...	...	800	...	...	...	...	...	...	...	...	...	...	...	...	...	...	48,000	...	...
Botalack	45,500	...	...	...	1,000	1,500	2,550	6,500	11,100	8,000	5,800	5,600	3,000	3,000	500	...	2,500	2,800	99,350	40,000	18,250
Brewer	10,600	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10,600	...	1,024
Callington	4,000	3,000	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7,000	...	39,250
Carn Brea	186,500	20,000	14,000	15,000	13,000	9,000	6,000	12,000	4,000	4,000	...	6,000	8,000	10,000	14,000	2,000	4,000	...	277,500	66,000	15,000
Devon Great Consols	93,184	15,360	3,720	34,304	40,960	40,960	46,080	65,024	57,344	57,344	59,392	68,608	45,056	47,104	48,128	43,008	53,248	56,320	875,144	599,040	1,024
Dolcoath	153,707	...	...	...	...	...	...	2,595	537	1,074	5,101	6,444	7,518	17,542	21,489	16,826	16,110	16,826	265,769	194,960	46,137
East Croft	76,610	1,880	...	470	...	...	...	...	...	...	...	...	...	...	...	...	...	...	78,960	44,464	11,750
East Pool	29,824	...	...	...	...	...	...	...	640	1,280	3,200	2,800	960	...	...	...	1,920	3,840	44,464	64,000	6,400
East Rose	181,860	34,560	25,500	17,920	16,000	9,280	2,240	...	...	988	3,705	1,482	...	...	1,235	...	...	...	287,360	212,030	19,780
Fowey Consols	202,644	...	...	...	1,976	...	...	...	...	...	...	...	...	...	...	...	...	...	212,030	24,700	3,104
Friendship	285,376	2,560	2,240	3,840	2,880	1,536	1,024	3,584	1,024	...	...	...	...	...	...	...	...	...	307,264	11,520	6,400
Great Consols	28,508	3,500	...	960	960	...	...	...	...	...	...	...	...	...	...	...	...	...	33,928	26,298	57,600
Great Work	4,404	...	...	2,677	4,165	2,975	3,451	2,082	1,785	...	3,867	892	...	...	...	...	...	...	26,298	13,090	57,600
Levant	150,400	1,280	...	6,720	4,000	3,040	320	820	960	960	1,280	1,280	2,240	1,600	800	...	...	...	175,200	15,200	11,900
Margaret	3,806	6,720	3,136	4,368	3,136	1,568	392	952	2,016	1,904	3,920	6,720	4,256	10,976	5,376	4,480	4,704	896	69,328	13,440	4,400
Mary (Lelant)	80,000	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	86,650	44,000	8,848
North Roskear	86,250	2,450	1,820	1,120	2,800	4,270	...	910	2,380	...	...	...	...	...	...	...	...	...	102,000	16,800	3,612
Owles	4,816	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	102,000	16,800	3,612
Par Consols	75,968	3,072	12,800	19,200	12,800	5,120	15,360	4,800	...	7,680	19,200	27,520	9,920	8,480	7,300	3,810	2,240	800	236,070	32,000	5,800
Providence Mines	2,581	...	...	3,640	2,576	1,680	...	840	1,540	6,300	10,080	10,080	5,040	11,634	8,680	4,480	5,040	5,320	79,511	49,840	11,360
South Caradon	53,248	7,680	3,840	640	384	3,840	1,280	6,400	13,312	12,288	12,288	14,338	13,824	15,360	16,896	15,360	15,360	15,104	221,442	225,280	640
South Frances	1,736	2,796	5,704	7,192	10,478	10,416	6,696	6,076	7,440	19,964	26,288	25,792	17,360	7,192	2,728	3,187	3,472	3,187	184,909	82,240	9,880
St. Ives Consols	78,114	...	...	470	282	1,222	1,974	1,410	752	...	1,880	1,880	2,585	11,750	9,165	2,115	940	2,820	117,359	23,200	9,880
Stray Park	4,000	4,000	500	1,000	3,000	...	...	...	...	...	...	...	...	...	...	...	...	...	12,500	25,760	7,520
Tamar Consols	37,920	...	...	5,760	...	...	...	...	...	1,200	...	...	...	1,200	3,600	1,200	...	...	50,880	43,200	29,698
Tincroft	30,000	...	...	2,100	3,150	...	3,150	3,150	...	4,500	3,000	4,500	6,000	1,500	4,500	6,000	12,000	83,550	114,000	48,200	
Trelawney	4,680	...	...	3,640	5,720	2,840	...	5,200	3,640	1,024	1,040	2,860	5,200	5,980	5,220	...	2,470	2,210	51,224	28,920	6,084
Tresavean	450,822	1,968	...	...	...	...	...	...	480	1,152	...	...	...	...	...	...	...	...	454,422	...	3,120
Trethellan	45,141	1,200	1,200	...	600	300	...	...	...	...	...	...	...	...	...	...	...	...	48,441	...	1,880
Treviskey and Barrier	4,940	5,910	2,180	3,120	8,760	6,780	4,770	740	720	...	...	...	...	...	...	...	...	...	37,920	...	15,600
United Mines	446,400	2,500	1,000	2,000	1,000	500	5,000	11,600	800	3,600	800	...	...	6,600	1,000	...	...	...	482,800	...	16,000
West Caradon	26,532	4,864	2,460	3,840	1,920	4,224	7,424	10,496	6,912	4,352	...	3,328	512	9,472	14,336	7,680	1,536	...	109,888	22,016	5,120
Chyprase	1,239	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,239	...	2,860
Seton	8,910	11,880	8,415	1,584	5,940	4,752	4,752	3,366	4,564	1,387	2,871	2,475	...	3,366	...	594	4,554	7,128	76,538	59,400	23,166
Trenow Consols	1,280	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,280	...	6,480
West Providence	768	704	409	2,048	1,024	2,560	10,752	6,656	3,328	1,280	2,816	1,024	...	...	...	...	...	...	33,369	...	5,120
Bal	120	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	840	...	1,560
Franco	388	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	776	...	14,760
North Pool	1,000	7,750	11,750	14,250	9,000	5,500	7,000	5,200	...	...	...	...	...	...	...	...	...	...	61,450	19,200	4,500
Sisters	1,024	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1024	...	7,518
Spearne Moor	700	256	880	1,376	1,920	2,048	896	...	840	350	...	...	...	...	840	700	...	...	10,806	8,400	8,928
Trehane	1,280	1,472	2,688	896	1,024	128	2,048	3,072	2,048	...	...	...	...	...	...	...	...	...	14,656	...	1,536
Treleigh Consols	4,500	1,000	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5,500	...	30,000
Vyvan	552	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	552	...	...
Bedford United	...	2,000	3,000	4,000	4,000	4,000	4,700	5,400	5,800	2,500	4,700	2,300	4,400	2,800	2,400	1,700	400	...	54,700	10,000	9,333
Buller	...	2,560	13,120	17,920	24,960	45,440	53,760	33,280	23,040	10,240	11,520	4,224	3,072	1,536	...	...	...	...	244,672	6,400	1,280
Comford	...	1,654	768	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2,422	...	13,200
Condurow	...	1,536	1,280	...	512	2,304	4,608	2,304	2,048	3,840	2,560	...	...	...	...	...	...	...	20,992	28,160	8,960
Great Polgooth	...	5,504	...	...	1,100	4,950	...	...	...	...	...	...	...	...	...	...	...	...	11,554	...	49,843
Mary Ann	...	640	5,632	4,608	1,024	1,792	1,024	1,280	7,680	8,960	9,216	8,192	4,396	2,048	2,048	...	...	...	59,052	12,800	8,192
Tremayne	...	512	3,328	3,584	3,072	512	384	...	...	...	...	...	...	...	...	...	...	...	11,892	5,110	13,414
Wellington	...	896	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2,816	...	8,488
Alfred Consols	...	2,048	9,472	16,128	20,736	16,896	8,704	12,544	4,352	1,280	...	...	...	...	...	...	...	...	98,048	...	18,768
Friendly	...	500	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	500	...	7,000
Lewis	...	500	1,500	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2,000	...	32,500
Level	...	860	3,440	4,300	1,720	2,560	...	430	...	...	...	...	...	...	...	...	...	...	13,530	...	14,190
North Basset	...	3,000	1,500	6,000	4,500	21,750	26,850	15,300	3,900	...	...	...	...	...	...	...	...	...	84,300	18,000	21,900
Penzance Consols	...	128	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	128	...	3,656
Reeth	...	3,000	3,000	2,500	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8,500	10,200	23,160
South Tolgus	...	3,712	4,224	7,168	2,304	...	...	...	...	...	2,816	2,816	6,144	5,632	1,792	2,048	512	...	39,168	20,480	4,096
Calstock United	...	1,000	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,000	...	11,421
Golden	...	3,250	1,250	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4,500	...	21,250
Herodsfoot	...	384	...	1,920	384	...	...	...	...	...	...	...	...	...	...	...	...	...	27,886	39,936	8,704
Perran St. George	...	2,030	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2,030	...	24,940
Phoenix	...	3,000	10,000	10,000	10,000	10,000	10,000	7,500	8,000	10,000	10,000	10,000	15,000	11,000	...	...	...	...	104,500	...	20,000
Polberro	...	3,283	2,525	2,416	4,480	3,295	2,436	5,000	2,436	1,506	...	...	...	...	...	...	...	...	31,608	8,860	26,580
Trumpet Consols	...	2,000	2,000	1,500	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10,200	20,000	11,500
Clifford	...	360	568	...	1,344	5,500	4,250	...													